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## ABSTRACT

This study identified changes in prospective teachers' (N=153) concerns about teaching as they progressed through teacher training, and investigated the relationship between these changes and the prospective teachers' Myers-Briggs personality preferences, Rotter's locus of control orientation, and selected personal attributes. It was found that levels of self-survival type concerns decreased and that teaching-task type concerns increased during teacher training; numerous relationships were identified between changes in pre- and post-test orientations of the prospective teachers. Each of the four Myers-Briggs dichotomous personality preferences, Rotter's external-internal locus of control classifications, anticipated grade level of instruction, level of basic academic skills, and gender were all found to be related to changes in the prospective teachers' concerns about teaching during teacher training. These findings were tentatively interpreted to support the argument that personal characteristics as well as environmental factors influence the nature of the impact of teacher training upon prospective teachers. Tables displaying the data and findings, and the Myers-Briggs Type Indicator report form are included. (JD)

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Relationships Between Prospective Teachers'  
Personality Attributes and Changes in Concerns  
about Teaching During Training

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Abstract

This study was designed to investigate how changes in concerns about teaching for a longitudinal sample of 153 prospective teachers as they progressed through teacher training were related to their Myers-Briggs' personality preferences, their Rotter's locus of control orientation, and other selected personal attributes. It was found that levels of self-survival type concerns decreased and teaching-task type concerns about teaching increased during teacher training, and numerous relationships were identified between changes in pre-posttest levels of concerns and selected personal attributes and personal orientations of the prospective teachers. Each of the four Myers-Briggs' dichotomous personality preferences, Rotter's external-internal locus of control classifications, anticipated grade level of instruction, level of basic academic skills, and gender of the prospective teachers were found to be related to changes in their concerns about teaching during teacher training. These findings were tentatively interpreted to support the contention that personal characteristics as well as environmental factors influence the nature of the impact of teacher training upon prospective teachers.

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Relationships Between Prospective Teachers'  
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about Teaching During Training

Increasingly educational researchers are changing their focus of interest from the question raised by Lortie (1975) of whether or not teacher training has an impact upon prospective teachers to the question of what is the nature of the impact of preservice training upon aspiring teachers. Considerable evidence now exists which suggests that affective changes do occur in prospective teachers as they progress through training (e.g., Adams & Martray, 1981; Callahan, 1980; Pigge & Marso, 1987). Further, limited research evidence suggests that affective changes occur both during preservice education and during the early years of teaching (Adams, 1982; Gehrke & Yamamoto, 1978; Marso & Pigge, 1989) and that these affective changes in prospective teachers can be explained by theoretical models such as Fuller's (Fuller & Bown, 1975) developmental concerns model.

In the Fuller model of preservice teachers' concerns development, the prospective teachers are perceived as having little concern about teaching until they approach the time of actual contact with pupils. Early teacher candidates' concerns are described as pertaining to their own survival (self-survival concerns) as teachers followed by concerns specific to the task of teaching (task concerns) such as the preparation of lessons and effective motivation of pupils. As the teacher trainees develop through the latter stages of preservice training and enter the teaching field, they begin to address concerns of whether or not and, if so, what types of impact they have upon their pupils (impact concerns). The model suggests, however, that preservice and novice teachers are unable to act upon these early impact concerns as they must address the more immediate situational demands (task concerns) and the pressing feelings of their own inadequacy as a developing teacher (self-survival concerns).

The somewhat conflicting nature of the results of the research of the impact of training and early teaching experiences upon teachers' development, however, seems to suggest that the differing nature of various prospective teachers and the different types of school settings where the neophyte teachers are assigned also impinge upon the development of aspiring teachers (Tabachnick & Zeichner, 1984). For example, Byler and Byler (1984) found that a positive change in morale during student teaching was related to the extent of the prospective teachers' early field experience, the student teachers' role expectation in the assigned school setting, the degree to which the cooperating teachers accepted the student teachers as fellow professionals, and the cooperating teachers' own morale. Further, Villeme and Hall (1980) reported that prospective teachers' attitude toward teaching was influenced by their gender, anticipated teaching grade level, and the selected teaching major within education.

Additional research of teacher development suggests that personality attributes may influence inservice teachers' success, their impact upon pupils, and their feelings of occupational stress. For example, Guyton and DeMoulin (1989) in conducting research

designed to assess the validity of a teacher career development model found that effective and ineffective inservice teachers differed in personality type but not in age, years of teaching experience, gender, race, and academic degrees earned. More specifically, they reported that Cattell's 16 Personality Factor Questionnaire revealed effective teachers as opposed to ineffective teachers to be more self-reliant, independent, dominant, assertive, competitive, resourceful, cheerful, and trusting and understanding of others but less respectful of school rules.

Other researchers (e.g., Parkay, Greenwood, Olejnik, & Proller [1988]; Sadowski, Blackwell, & Willard [1986]; McIntyre [1984]; Meadow [1981]) have identified a relationship between teachers' stress or burnout and their feelings of locus of control. Generally, these researchers described teachers with low levels of stress and with feelings of high internal control as having fewer classroom discipline problems, having fewer intrapersonal conflicts, and having better relations with superiors, colleagues, and students' parents than their more stressful and externally controlled colleagues.

Relatedly, Ashton, Webb, and Doda (1983) reported relationships between teachers' feelings of self-efficacy and feelings of internal locus of control and a tendency for teachers with an internal as opposed to an external locus of control to accept personal responsibility for their pupils' success or failure. Finally, Murray and Staebler (1974) found that those teachers reporting feelings of high internal as opposed to those reporting high external locus of control had higher achieving pupils.

The purpose of the present study was to further investigate possible relationships between affective changes in prospective teachers during teacher training and their personality and personal attributes. More specifically, this study was designed to identify prospective teachers' changes in their concerns about teaching as they progressed through training and to ascertain whether these changes were related to their personality preferences as measured by the Myers-Briggs Type Indicator, by their locus of control as measured by Rotter's External-Internal Locus of Control Scale, and by their personal attributes of gender, level of basic academic skills, selected academic major, and their anticipated grade level of instruction.

#### Method

The subjects of this investigation were composed of all students entering the teacher preparation program at Bowling Green State University during the calendar year 1985 and who had completed their student teaching experience by June, 1988. This longitudinal sample consisted of 153 prospective teachers of whom 127 were females and of whom 58 anticipated teaching at the secondary level and 75 at the elementary grade level. These aspiring teachers were predominately from small to medium-size high schools (80% from high schools with less than 500 pupils), from rural and suburban communities (87%), from families with at least one near relative a teacher (55%), from

families with somewhat over one-half of their mothers or fathers not having a four-year college degree, and from somewhat larger than average size families (over 60% with two or more siblings).

Each of the subjects completed the Teacher Concerns Questionnaire (George, 1978) upon entrance to teacher training and again upon completion of student teaching. This instrument consists of 15 items with five items on each of the self, task, and impact subscales. The response scale for each item is a continuum from not concerned (1) to extremely concerned (5).

The Myers-Briggs Type Indicator (Myers and McCaulley, 1985) and Rotter's Internal-External Locus of Control (1966) instruments were administered to these prospective teachers just prior to their student teaching experience for the purpose of assessing their personality orientations. The Myers-Briggs Type Indicator (MBTI) is an untimed 126-item inventory which yields four dichotomous personality preferences. These orientations are: a) extroversion or introversion (EI) which indicates a preference for a social as opposed to a solitary settings orientation; b) sensing or intuitive (SN) suggesting that immediate realities guide perceptions and decisions rather than future, hypothetical possibilities; c) thinking or feeling (TF) which pertains to a judgement orientation of using impersonal logic in contrast to personal subjectivity; and d) judging or perceiving (JP) suggesting a preference for decisiveness and planned activities as opposed to openness, flexibility, and tentativeness.

Testees are assigned a four-letter description of their MBTI orientation, such as INTJ indicating an introverted, intuitive, thinking, and judging approach to one's external reality. According to Myers and McCaulley (1985), teachers (with variations by teaching level, major, and gender) are most commonly found to have an orientation of ESFJ suggesting preferences for social settings, for a focus upon immediate reality to guide perceptions, for a use of personal values in making decisions, and for a planned and orderly environment. These researchers have also reported that college students who are introverted, intuitive, and/or perceptive tend to earn the highest Scholastic Achievement Test (SAT) scores.

The locus of control instrument consists of a 23-item forced choice scale with higher scores indicating more external individuals (Lefcourt, 1982). Locus of control refers to what the individuals perceive as the cause or origin of their achievement. An "external" testee would typically perceive his/her achievement to result from uncontrollable factors such as luck, fate, teacher, difficulty of the task, etc.; whereas the "internal" testee typically perceives his/her achievement to result from controllable factors such as his/her own abilities and effort. It is conceptualized that teachers with an internal locus of control are more "take charge" type persons in the classroom and are more likely to help their pupils in developing feelings of internal control and in becoming self-motivated achievers (Lefcourt, 1982).

A series of dependent t-test pretest-posttest comparisons were completed on the three scale scores derived from the concerns about teaching measure. Additionally, the prospective teachers were grouped by their gender, their planned grade level of instruction (elementary and secondary grades), high and low levels of basic academic skills (approximate top and bottom one-halves determined by composite scores on the Comprehensive Test of Basic Skills), their Myers-Briggs classifications previously described, and on their locus of control (approximate top [externals] and bottom halves [internals] of externality scores). Pretest-posttest dependent t-test comparisons were completed for the prospective teachers' scores in each of the above described dichotomies and for each of the 15 concerns items. The pre-posttest comparisons of individual items were completed to provide a more descriptive view of the prospective teachers' changes in concerns about teaching as they progressed through teacher training.

### Findings

#### Changes in Concerns

The dependent t-test comparisons of the means derived from the concerns measures administered to the prospective teachers upon the commencement of teacher training and again upon completion of student teaching resulted in the identification of significant mean changes in task and self concerns but not for impact concerns. The prospective teachers' overall self concern levels decreased, their task concerns increased, and their impact concerns were high and stable across these two measurement points.

This pattern of levels of concerns across the two points in teacher training appears to be desirable and predictable as conceptualized within the Fuller model. In general, this model predicts a decrease in self concerns, an increase in task concerns, and basically no change in impact concerns as aspiring teachers progress through teacher training.

As shown on Table 1, the overall task scale means at the two points in teacher training were 11.63 and 12.93, respectively ( $t = 3.15$ ,  $p = .002$ ); the self scale means at the two points in teacher training were 16.22 and 15.45, respectively ( $t = 1.93$ ,  $p = .055$ ); and the impact scale means were 18.41 and 17.33, respectively ( $t = 1.65$ ,  $p = .101$ ).

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Insert Table 1 about here  
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When the total group of prospective teachers formed the analysis base for the individual item pretest-posttest dependent t-test comparisons of the means, significant changes were revealed on six of the 15 concerns items as shown in Table 2. None of the five impact scale items revealed change; this is in accord with the predictions of the Fuller model. Three of the task concern items revealed an

increased level of concern after student teaching, and two of the self concern items showed a decreased level of concern after student teaching. These item mean changes are consistent with the Fuller model also. The model, however, predicts a decrease in prospective teachers' concern about maintaining the appropriate degree of class control, but these prospective teachers revealed an increase in this concern from the commencement of training to completion of student teaching. This item, in effect, appears to act as do "task" items and not as "self" items should within the Fuller model.

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 Insert Table 2 about here  
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#### External or Internal Locus

The locus of control classification of the prospective teachers revealed pretest-posttest item mean changes ( $p < .05$ ) for three task items and for three self items as shown in Table 3. Those prospective teachers expressing a feeling of control (internals) in dealing with their world reported an increased level of concern on the posttest as opposed to the pretest for four of the 15 concerns items: a) feeling under pressure much of the time (task), b) too many noninstructional duties (task), c) working with too many students each day (task), and d) maintaining the appropriate degree of class control (self).

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 Insert Table 3 about here  
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In contrast, those prospective teachers who reported having less control over their world (externals) expressed a decreased level of concern on the posttest in contrast to the pretest measure for two self concerns items: a) feeling more adequate as a teacher, and b) being accepted and respected by professional persons. This locus of control pattern of changes for the prospective teachers suggests that internally controlled teacher candidates became more concerned about the instructional and managerial tasks of teaching; whereas the externally controlled candidates became less concerned about their professional adequacy and professional others' acceptance of them.

#### Gender

The gender classification of the prospective teachers revealed six pretest-posttest item mean changes ( $p < .05$ ) with changes in three items contained within each of the task and self scales as reported in Table 4. Only the female aspiring teachers reported changes with four items revealing increased concerns and two items revealing decreased concerns. The four items revealing an increased level of concern by the female prospective teachers after student teaching as compared to prior to training were: a) feeling under pressure too much of the time (task), b) too many noninstructional duties (task), c) working with too many students each day (task), and d) maintaining the appropriate degree of class control (self).

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 Insert Table 4 about here  
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The two items revealing a decreased level of concern over this period of time for the female prospective teachers were: a) feeling more adequate as a teacher (self), and b) being accepted and respected by professional persons (self). This pattern of change for the gender classification might suggest that female prospective teachers change their concerns about teaching during training to a greater extent than do males.

#### Grade Level

When the prospective teachers were grouped by anticipated grade level of instruction, pretest-posttest item mean differences ( $p < .05$ ) were revealed for four of the fifteen concerns items with two items each located in the self and task scales (see Table 5). The secondary level teacher candidates revealed an increased level of concern for three items: a) feeling under pressure much of the time (task), b) too many noninstructional duties (task), and c) maintaining the appropriate degree of class control (self).

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 Insert Table 5 about here  
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In contrast to the prospective secondary teachers, the elementary group revealed mean changes for these two items: a) an increase in feeling under pressure much of the time (task), and b) a decrease in concern about feeling more adequate as a teacher (self). This grade level pattern of item mean changes might suggest that secondary teacher candidates express more concern about the instructional and managerial tasks of teaching upon the completion of training as compared to the commencement of their training; whereas the elementary teacher candidates report, as did the secondary teachers, more concerns about time pressures in teaching but, unlike the secondary majors, feel more adequate as a teacher after training as compared to prior to training.

#### Academic Skills

The analysis using the basic academic skills classification of the prospective teachers revealed significant pretest-posttest mean changes ( $p < .05$ ) for eight concerns items with four items from each of the task and self scales. Those prospective teachers classified as possessing higher academic skills expressed increased posttest concerns, when compared to their pretest levels, for five items: a) lack of instructional materials (task), b) feeling under pressure much of the time (task), c) too many noninstructional duties (task), d) working with too many students each day (task), and e) maintaining the appropriate degree of class control (self).

In contrast to the higher ability individuals, those aspiring teachers with lower academic skills expressed decreased levels of posttest concern after student teaching for three self concern items: a) doing well when superior is present (self), b) feeling more adequate as a teacher (self), and c) being accepted and respected by professional persons (self). This academic skills level classification of the prospective teachers revealed that higher ability students became more concerned about the task of teaching during training; whereas the lower ability prospective teachers expressed less self concern about teaching after training as compared to prior to training (see Table 6).

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Insert Table 6 about here  
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#### Extrovert or Introvert

The four dichotomous personality type classifications of the prospective teachers derived from the Myers-Briggs Type Indicator revealed pretest-posttest scale item mean differences ( $p < .05$ ) for nine of the 15 concerns items with one from the impact scale and four from each of the task and self scales. The extrovert or introvert analysis classification revealed significant pretest-posttest differences for two items each from the self and task scales. The extrovert group revealed significantly less posttest concern about feeling more adequate as a teacher (self) and being accepted and respected by professional persons (self), but the extroverts, as did the introverts, reported more posttest concern about feeling under pressure much of the time (task).

The introvert group of prospective teachers expressed more posttest concerns for two task concerns: a) feeling under pressure much of the time, and b) too many noninstructional duties. The pattern of pre-posttest item means for this Myers-Briggs' preference classification indicate that introverted prospective teachers expressed relatively more concern about teaching tasks upon the completion of student teaching as compared to the commencement of training; whereas the extroverted aspiring teachers expressed less concern about self-survival but more concern about the task of teaching after student teaching (see Table 7). Over two-thirds of this sample of prospective teachers were classified as extroverted as opposed to introverted.

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Insert Table 7 about here  
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#### Sensing or Intuitive

The MBTI sensing or intuitive classification of the prospective teachers revealed significant pretest-posttest mean changes ( $p < .05$ ) for six of the 15 concerns items with three items from the task scale and three from the self scale. The intuitive group reported more

posttest as opposed to pretest concerns for three task items: a) lack of instructional materials, b) feeling under pressure much of the time, and c) too many noninstructional duties, but this group reported less posttest than pretest concern for one self item: feeling more adequate as a teacher.

The sensing group of prospective teachers expressed less posttest than pretest concern for three self items: a) doing well when superior is present, b) feeling more adequate as a teacher, and c) being accepted and respected by professional persons. This pattern of change might suggest that intuitive type prospective teachers are more likely to express increased task concerns; whereas sensing type prospective teachers are more likely to express decreased self concerns upon completion of student teaching as opposed to when they started teacher training (see Table 8). This sample of prospective teachers was approximately equally divided between sensing and intuitive types.

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Insert Table 8 about here  
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#### Thinking or Feeling

The thinking or feeling classification of the prospective teachers as derived from the Myers-Briggs instrument revealed significant pretest-posttest mean differences for four of the 15 concerns items with two each from the task and self scales. Those prospective teachers classified as feeling reported significantly more concern after student teaching as opposed to upon commencement of training for: a) feeling under pressure much of the time (task), b) too many noninstructional duties (task), c) but significantly less concern about feeling adequate as a teacher (self), and d) less about being accepted and respected by professional persons (self).

Conversely, the prospective teachers classified as thinking expressed significantly less posttest concern for just a single item, feeling more adequate as a teacher (self). These findings might suggest that feeling type aspiring teachers are more likely to be influenced by teacher training than are those classified as thinking. Approximately two-thirds of this sample of prospective teachers were classified as feeling type individuals as compared to thinking types as reported on Table 9.

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Insert Table 9 about here  
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#### Judging or Perceiving

The fourth of the Myers-Briggs classifications judging or perceiving, revealed pretest-posttest mean differences for five of the 15 concerns items. The judging individuals reported significantly higher levels of posttest concern about working with too many students

(task) but significantly less concern about feeling adequate as a teacher (self) and being accepted and respected by professional persons (self). In contrast, the perceiving individuals did not express a significant pretest-posttest change for any of these three concerns items, but they reported more posttest than pretest concern about feeling under pressure much of the time (task) and whether each student is getting what he/she needs (impact). Almost three-fourths of this sample of aspiring teachers were classified as judging as compared to perceiving types of individuals (see Table 10).

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 Insert Table 10 about here  
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### Summary and Discussion

The concerns about teaching measure administered to the longitudinal sample of prospective teachers at the commencement of their teacher training and again upon the completion of their student teaching experience revealed that significant changes in concerns about teaching occurred during the period of teacher training. The prospective teachers, as they progressed through teacher training, reported being more concerned about the task of teaching and less concerned about their self-survival as a teacher but reported no significant change in concern about their impact upon pupils. These findings from this longitudinal sample of teacher candidates are generally consistent with Fuller's stages of concerns developmental model (Fuller & Bown, 1975) and are consistent with the findings derived from cross-sectional studies of aspiring teachers (Adams, 1982; Pigge & Marso, 1987).

The pretest-posttest analyses on the individual concerns items for the total sample of prospective teachers revealed significant item scale mean differences for six of the 15 concerns items. In contrast, when the aspiring teachers were grouped within the various personal, academic and personality classifications, pretest-posttest item mean differences were revealed for 10 of the 15 concerns items. From beginning to the end of the teacher training period, the aspiring teachers, regardless of personality or personal classification, did not report a change for the following five concerns items: meeting the needs of different kinds of students, diagnosing student learning problems, challenging unmotivated students, guiding students toward intellectual and emotional growth, and the routine and inflexibility of the teaching situation. All but the last (a task concern) of these five concerns items are identified as concern about teachers' impact upon pupils for which the Fuller model predicts no change during training and for which this sample of aspiring teachers expressed high levels of concern at both the pretest and posttest measurement points, also as predicted by the Fuller model.

The single impact concern scale item revealing change among the various groupings of the prospective teachers was the concern of whether or not each pupil is getting what he/she needs. This item, however, revealed a pretest-posttest difference for just the

perceiving group in the judging-perceiving Myers-Briggs' classification. The perceiving teacher candidates (individuals who prefer a flexible, spontaneous way of life as opposed to individuals who prefer a planned, decided, orderly way of life) reported less concern after as opposed to prior to training for this area of concern.

Relative to the goal of identifying personal characteristics which may influence affective changes of prospective teachers as they progress through teacher training it was found that: a) the gender classification resulted in pretest-posttest mean differences for six of the 15 concerns items, b) the prospective teachers' anticipated grade level of instruction classification resulted in pretest-posttest mean differences for four of the 15 concerns items, c) the prospective teachers' level of basic academic skills classification resulted in pretest-posttest mean differences for eight of the 15 concerns items, d) the Myers-Briggs' dichotomous personal preference classifications of the prospective teachers resulted in pretest-posttest mean differences for eight of the 15 concerns items, and 3) the locus of control classification of the prospective teachers resulted in pretest-posttest mean differences for six of the 15 concerns items.

The pretest-posttest item comparisons for the personal, academic, and personality preference classifications of this sample of prospective teachers for the 15 concerns items if or when corroborated by subsequent investigations would suggest the following generalizations:

- 1) Female teacher candidates are more likely to report changes in concerns about teaching during teacher training than are male candidates (i.e., the female prospective teachers in the present study expressed increased concerns about time pressure, noninstructional duties, classroom control, and having too many students; and expressed decreased concerns about feeling adequate and being accepted by other professionals following student teaching as compared to prior to training; whereas the males reported no changes in concerns.).
- 2) Prospective teachers with higher basic academic skills at the outset of training are likely to express more concern about the task of teaching after student teaching as compared to before training (i.e., concerns about insufficient instructional materials, time pressure, noninstructional duties, too many pupils, and class control type concerns); whereas those with lower academic skills are likely not to. In contrast, the prospective teachers with lower academic skills are likely to express less concern about self-survival as a teacher after training as opposed to prior to training (i.e., concerns about the presence of a superior, feeling adequate, and being accepted by other professionals); whereas those with higher academic skills are likely not to. This may indicate that the more highly capable teacher candidates perceive the teaching task to be more difficult after teacher training than they do at the commencement of teacher training.

- 3) Those prospective teachers planning to teach in the secondary grades, but not those planning to teach in the elementary grades, are likely to have more concerns about class control and noninstructional duties after as opposed to prior to training.
- 4) The prospective teachers who feel as though they have a sizable influence over their world (internal locus of control) are likely to express more concerns about the task of teaching after training as opposed to prior to training (i.e., feeling under pressure, too many noninstructional duties, too many students, and appropriate class control); whereas, those feeling that they have little influence over their world (external locus of control) are likely to express less self-survival type concern after student teaching (i.e., being accepted by other professionals and feeling more adequate as a teacher). This finding may suggest that "internal" teacher candidates find that teachers have less control over teaching and the classroom setting than they had anticipated upon the commencement of training. In other words, experiences during teacher training may make the more self-confident "internals" realize just how complex the teaching task really is.
- 5) The prospective teachers who relate more readily to the inner world of ideas (introvert type), rather than to the outer world of people and things (extrovert type); are likely to express more concern about the task of teaching (i.e., being under pressure much of the time and too many noninstructional duties) after student teaching as compared to prior to training; whereas the extroverts are likely to express less concern about self-survival as a teacher after as opposed to prior to training (i.e., feeling adequate as a teacher and acceptance by other professionals).
- 6) Teacher candidates who prefer looking for possibilities and relationships (intuitive), rather than working with known facts (sensing), are likely to express more concern about the task of teaching (i.e., too many noninstructional duties, too few instructional materials, and feeling under pressure much of the time) after student teaching as opposed to prior to teacher training.
- 7) Feeling-type teacher candidates are more likely to change during teacher training than are thinking-type candidates. Those prospective teachers who base their judgements on personal values (feeling), in contrast to basing their judgements on impersonal analysis and logic (thinking), are likely to express less concern about acceptance by other professionals; but they express more concern about class control, feeling under pressure much of the time, and too many noninstructional duties after as compared to prior to training.
- 8) Prospective teachers who prefer a flexible, spontaneous way of life (perceiving individuals) in contrast to a planned, decided, orderly way of life (judging individuals) are likely to express less impact-type concern (i.e., whether each pupil is getting

what is needed) following as opposed to before training. Judging individuals are likely to express more self-survival type concerns (i.e., feeling adequate as a teacher and being accepted by other professionals) after as compared to prior to training.

In brief, the findings from the present study would seem to lend support to the contention that teacher training does have an impact upon prospective teachers. And more pertinent to the purpose of the present study, these findings lend support to those teacher educators who have contended that personal/personality attributes of teacher candidates are related to the nature of the impact that teacher training has upon prospective teachers; and these findings, at least indirectly, suggest that knowledge of the attributes of prospective teachers may assist future teacher educators and researchers in seeking to better understand and to better control the impact of teacher training upon aspiring teachers.

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## Footnote

<sup>1</sup>Findings of a significant mean decrease on this "self" scale during teacher training for cross-sectional samples from essentially this same population of prospective teachers support this seemingly arbitrary interpretation of a significant mean decrease when  $p = .055$  (see Marso & Pigge [1989] and Pigge & Marso [1987]).

Table 1

Dependent t-Ratios for the Three Concerns Scales

| Dependent<br>Variables | N   | <u>Prior to</u><br><u>Training</u> |             | <u>Post-Student</u><br><u>Teaching</u> |             | <u>t</u> | <u>p</u> |
|------------------------|-----|------------------------------------|-------------|----------------------------------------|-------------|----------|----------|
|                        |     | <u><math>\bar{X}</math></u>        | <u>S.D.</u> | <u><math>\bar{X}</math></u>            | <u>S.D.</u> |          |          |
| Concerns               |     |                                    |             |                                        |             |          |          |
| Task                   | 153 | 11.63                              | 3.85        | 12.93                                  | 4.18        | 3.15     | .002     |
| Self                   | 153 | 16.22                              | 4.26        | 15.45                                  | 4.41        | 1.93     | .055     |
| Impact                 | 153 | 18.41                              | 4.61        | 17.73                                  | 5.11        | 1.65     | .101     |

Table 2

Dependent t-Ratios for Each of the Individual Concerns Items: Total Sample (N = 147)

|                                                           | Means   |          |      |      | Direction |
|-----------------------------------------------------------|---------|----------|------|------|-----------|
| Concerns Item                                             | Pretest | Posttest | t    | p    | of Change |
| <u>Task Concerns</u>                                      |         |          |      |      |           |
| Lack of instructional materials                           | 2.65    | 2.72     | 0.56 | .578 | NS        |
| Feeling under pressure much of the time                   | 2.53    | 2.89     | 3.16 | .002 | +         |
| Too many noninstructional duties                          | 2.01    | 2.34     | 2.82 | .006 | +         |
| Working with too many students each day                   | 2.19    | 2.44     | 2.15 | .033 | +         |
| The routine and inflexibility of the teaching situation   | 2.39    | 2.43     | 0.37 | .712 | NS        |
| <u>Self Concerns</u>                                      |         |          |      |      |           |
| Doing well when superior is present                       | 3.28    | 3.10     | 1.69 | .092 | NS        |
| Feeling more adequate as a teacher                        | 3.34    | 2.94     | 3.60 | .000 | -         |
| Being accepted and respected by professional persons      | 3.13    | 2.78     | 3.03 | .003 | -         |
| Getting a favorable evaluation of my teaching             | 3.25    | 3.17     | 0.68 | .497 | NS        |
| Maintaining the appropriate degree of class control       | 3.33    | 3.56     | 2.22 | .028 | +         |
| <u>Impact Concerns</u>                                    |         |          |      |      |           |
| Meeting the needs of different kinds of students          | 3.87    | 3.73     | 1.36 | .174 | NS        |
| Diagnosing student learning problems                      | 3.40    | 3.36     | 0.45 | .655 | NS        |
| Challenging unmotivated students                          | 3.77    | 3.67     | 0.85 | .394 | NS        |
| Guiding students toward intellectual and emotional growth | 3.72    | 3.58     | 1.24 | .216 | NS        |
| Whether each student is getting what he/she needs         | 3.80    | 3.74     | 0.63 | .531 | NS        |

Table 3

Dependent t-Ratios for the Individual Concerns Items Which Revealed Significant ( $p < .05$ ) Mean Changes Based upon the Internal or External Locus of Control Classification

| <u>Concern Item (Scale)</u>                                 | <u>Means</u>   |                 | <u>t</u> | <u>p</u> | <u>Direction<br/>of Change</u> |
|-------------------------------------------------------------|----------------|-----------------|----------|----------|--------------------------------|
|                                                             | <u>Pretest</u> | <u>Posttest</u> |          |          |                                |
| Internal Locus of Control (N = 70)                          |                |                 |          |          |                                |
| Feeling under pressure much of the time (task)              | 2.43           | 2.90            | 2.93     | .005     | +                              |
| Too many noninstructional duties (task)                     | 2.01           | 2.43            | 2.22     | .030     | +                              |
| Working with too many students each day (task)              | 2.00           | 2.36            | 2.21     | .030     | +                              |
| Maintaining the appropriate degree of class control (self)  | 3.23           | 3.72            | 3.23     | .002     | +                              |
| External Locus of Control (N = 37)                          |                |                 |          |          |                                |
| Feeling more adequate as a teacher (self)                   | 3.41           | 2.59            | 3.77     | .001     | -                              |
| Being accepted and respected by professional persons (self) | 3.38           | 2.65            | 3.11     | .004     | -                              |

Table 4

Dependent t-Ratios for the Individual Concerns Items Which Revealed Significant ( $p < .05$ ) Mean Changes Based upon the Gender Classification

| <u>Concern Item (Scale)</u>                                 | <u>Means</u>   |                 | <u>t</u> | <u>p</u> | <u>Direction<br/>of Change</u> |
|-------------------------------------------------------------|----------------|-----------------|----------|----------|--------------------------------|
|                                                             | <u>Pretest</u> | <u>Posttest</u> |          |          |                                |
| Female Prospective Teachers (N = 118)*                      |                |                 |          |          |                                |
| Feeling under pressure much of the time (task)              | 2.56           | 2.97            | 3.06     | .003     | +                              |
| Too many noninstructional duties (task)                     | 2.03           | 2.32            | 2.19     | .031     | +                              |
| Working with too many students each day (task)              | 2.17           | 2.50            | 2.48     | .015     | +                              |
| Maintaining the appropriate degree of class control (self)  | 3.34           | 3.64            | 2.65     | .009     | +                              |
| Feeling more adequate as a teacher (self)                   | 3.34           | 3.03            | 3.17     | .002     | -                              |
| Being accepted and respected by professional persons (self) | 3.15           | 2.75            | 3.03     | .003     | -                              |

\*No significant mean changes were identified for the male subjects (N = 26).

Table 5

Dependent t-Ratios for the Individual Concerns Items Which Revealed Significant ( $p < .05$ ) Mean Changes Based upon the Grade Level of Instruction Classification

| <u>Concern Item (Scale)</u>                                | <u>Means</u>   |                 | <u>t</u> | <u>p</u> | <u>Direction<br/>of Change</u> |
|------------------------------------------------------------|----------------|-----------------|----------|----------|--------------------------------|
|                                                            | <u>Pretest</u> | <u>Posttest</u> |          |          |                                |
| Secondary Prospective Teachers (N = 53)                    |                |                 |          |          |                                |
| Feeling under pressure much of the time (task)             | 2.40           | 2.87            | 2.46     | .017     | +                              |
| Too many noninstructional duties (task)                    | 1.81           | 2.43            | 3.06     | .004     | +                              |
| Maintaining the appropriate degree of class control (self) | 3.38           | 3.81            | 2.34     | .023     | +                              |
| Elementary Prospective Teachers (N = 71)                   |                |                 |          |          |                                |
| Feeling under pressure much of the time (task)             | 2.63           | 2.96            | 2.09     | .040     | +                              |
| Feeling more adequate as a teacher (self)                  | 3.30           | 2.86            | 2.59     | .012     | -                              |

Table 6

Dependent t-Ratios for the Individual Concerns Items Which Revealed Significant ( $p < .05$ ) Mean Changes Based upon the Basic Academic Skills (CTBS) Classification

| <u>Concern Item (Scale)</u>                                 | <u>Means</u>   |                 | <u>t</u> | <u>p</u> | <u>Direction<br/>of Change</u> |
|-------------------------------------------------------------|----------------|-----------------|----------|----------|--------------------------------|
|                                                             | <u>Pretest</u> | <u>Posttest</u> |          |          |                                |
| High Basic Academic Skills Prospective Teachers (N = 71)    |                |                 |          |          |                                |
| Lack of instructional materials (task)                      | 2.21           | 2.57            | 2.46     | .016     | +                              |
| Feeling under pressure much of the time (task)              | 2.49           | 2.93            | 2.77     | .007     | +                              |
| Too many noninstructional duties (task)                     | 1.91           | 2.35            | 2.58     | .012     | +                              |
| Working with too many students each day (task)              | 2.13           | 2.45            | 2.22     | .029     | +                              |
| Maintaining the appropriate degree of class control (self)  | 3.20           | 3.61            | 2.98     | .004     | +                              |
| Low Basic Academic Skills Prospective Teachers (N = 72)     |                |                 |          |          |                                |
| Doing well when superior present (self)                     | 3.57           | 3.25            | 2.07     | .042     | -                              |
| Feeling more adequate as a teacher (self)                   | 3.46           | 2.86            | 3.59     | .001     | -                              |
| Being accepted and respected by professional persons (self) | 3.42           | 2.83            | 3.53     | .001     | -                              |

Table 7

Dependent t-Ratios for the Individual Concerns Items Which Revealed Significant ( $p < .05$ ) Mean Changes Based upon the Myers-Briggs Extroverted or Introverted Personality Classification

| <u>Concern Item (Scale)</u>                                 | <u>Means</u>   |                 | <u>t</u> | <u>p</u> | <u>Direction<br/>of Change</u> |
|-------------------------------------------------------------|----------------|-----------------|----------|----------|--------------------------------|
|                                                             | <u>Pretest</u> | <u>Posttest</u> |          |          |                                |
| Extroverted Prospective Teachers (N = 103)                  |                |                 |          |          |                                |
| Feeling more adequate as a teacher (self)                   | 3.47           | 2.93            | 3.80     | .000     | -                              |
| Being accepted and respected by professional persons (self) | 3.25           | 2.84            | 2.97     | .004     | -                              |
| Feeling under pressure much of the time (task)              | 2.58           | 2.85            | 1.99     | .049     | +                              |
| Introverted Prospective Teachers (N = 41)                   |                |                 |          |          |                                |
| Feeling under pressure much of the time (task)              | 2.41           | 2.90            | 2.29     | .027     | +                              |
| Too many noninstructional duties (task)                     | 1.88           | 2.39            | 2.11     | .041     | +                              |

Table 8

Dependent t-Ratios for the Individual Concerns Items Which Revealed Significant ( $p < .05$ ) Mean Changes Based upon the Myers-Briggs Sensing or Intuitive Personality Classification

| <u>Concern Item (Scale)</u>                                 | <u>Means</u>   |                 | <u>t</u> | <u>p</u> | <u>Direction<br/>of Change</u> |
|-------------------------------------------------------------|----------------|-----------------|----------|----------|--------------------------------|
|                                                             | <u>Pretest</u> | <u>Posttest</u> |          |          |                                |
| Sensing Prospective Teachers (N = 74)                       |                |                 |          |          |                                |
| Doing well when superior present (self)                     | 3.53           | 3.14            | 2.46     | .016     | -                              |
| Feeling more adequate as a teacher (self)                   | 3.27           | 2.80            | 2.69     | .009     | -                              |
| Being accepted and respected by professional persons (self) | 3.32           | 2.77            | 3.08     | .003     | -                              |
| Intuitive Prospective Teachers (N = 69)                     |                |                 |          |          |                                |
| Lack of instructional materials (task)                      | 2.55           | 2.94            | 2.37     | .021     | +                              |
| Too many noninstructional duties (task)                     | 2.01           | 2.41            | 2.23     | .029     | +                              |
| Feeling under pressure much of the time (task)              | 2.46           | 3.00            | 3.55     | .001     | +                              |
| Feeling more adequate as a teacher (self)                   | 3.39           | 3.07            | 2.13     | .037     | -                              |

Table 9

Dependent t-Ratios for the Individual Concerns Items Which Revealed Significant ( $p < .05$ ) Mean Changes Based upon the Myers-Briggs Feeling or Thinking Personality Classification

| <u>Concern Item (Scale)</u>                                 | <u>Means</u>   |                 | <u>t</u> | <u>p</u> | <u>Direction<br/>of Change</u> |
|-------------------------------------------------------------|----------------|-----------------|----------|----------|--------------------------------|
|                                                             | <u>Pretest</u> | <u>Posttest</u> |          |          |                                |
| Feeling Prospective Teachers (N = 98)                       |                |                 |          |          |                                |
| Feeling under pressure much of the time (task)              | 2.47           | 3.02            | 3.79     | .000     | +                              |
| Too many noninstructional duties (task)                     | 1.86           | 2.29            | 2.88     | .005     | +                              |
| Feeling more adequate as a teacher (self)                   | 3.36           | 2.99            | 2.71     | .008     | -                              |
| Being accepted and respected by professional persons (self) | 3.09           | 2.74            | 2.39     | .019     | -                              |
| Thinking Prospective Teachers (N = 46)                      |                |                 |          |          |                                |
| Feeling more adequate as a teacher (self)                   | 3.26           | 2.80            | 2.10     | .041     | -                              |

# Report Form for Myers-Briggs Type Indicator\*

Name \_\_\_\_\_ Sex: M ☐ F ☐ Age \_\_\_\_\_ Other \_\_\_\_\_ Date \_\_\_\_\_

|                      |                          | PREFERENCE STRENGTHS |    |    |   |    |    |    |  |                          |                      |            |  |
|----------------------|--------------------------|----------------------|----|----|---|----|----|----|--|--------------------------|----------------------|------------|--|
|                      |                          | POINTS FOR           |    |    |   |    | 0  |    |  |                          |                      | POINTS FOR |  |
| <b>E</b> XTRAVERSION | <input type="checkbox"/> | 60                   | 40 | 20 | 0 | 20 | 40 | 60 |  | <input type="checkbox"/> | <b>I</b> NTROVERSION |            |  |
| <b>S</b> ENSING      | <input type="checkbox"/> | 60                   | 40 | 20 | 0 | 20 | 40 | 60 |  | <input type="checkbox"/> | <b>N</b> INTUITION   |            |  |
| <b>T</b> HINKING     | <input type="checkbox"/> | 60                   | 40 | 20 | 0 | 20 | 40 | 60 |  | <input type="checkbox"/> | <b>F</b> EELING      |            |  |
| <b>J</b> UDGING      | <input type="checkbox"/> | 60                   | 40 | 20 | 0 | 20 | 40 | 60 |  | <input type="checkbox"/> | <b>P</b> ERCEPTIVE   |            |  |

TYPE ☐☐☐☐

Indicator questions deal with the way you like to use your perception and judgment, that is, the way you like to look at things and the way you like to go about deciding things. The answers given reflect four separate preferences called EI, SN, TF and JP. The profile above shows your score on each preference. The four letters of your "type" tell how you came out on all four preferences. What each preference means is shown below.

**E** An E for extraversion probably means you relate more easily to the outer world of people and things than to the inner world of ideas.

**S** An S for sensing probably means you would rather work with known facts than look for possibilities and relationships.

**T** A T for thinking probably means you base your judgments more on impersonal analysis and logic than on personal values.

**J** A J for the judging attitude probably means you like a planned, decided, orderly way of life better than a flexible, spontaneous way.

**I** An I for introversion probably means you relate more easily to the inner world of ideas than to the outer world of people and things.

**N** An N for intuition probably means you would rather look for possibilities and relationships than work with known facts.

**F** An F for feeling probably means you base your judgments more on personal values than on impersonal analysis and logic.

**P** A P for the perceptive attitude probably means you like a flexible, spontaneous way of life better than a planned, decided, orderly way.

Each combination of preferences tends to be characterized by its own set of interests, values and skills. On the back of this page are very brief descriptions of each type. Find the one matching your four letters and see whether or not it fits you. If it doesn't, try to find one that does. Whatever your preferences, of course, you may still use some behaviors characteristic of contrasting preferences, but not with equal liking or skill. This tendency may be greater if preference strength on a scale is low (under 15). For a more complete discussion of the types and their vocational and personal implications, see *Introduction to Type* by Isabel Briggs Myers, or consult your counselor.